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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,705	07/16/2004	Jin-Young Park	ASIAP123	5119
25920	7590	02/06/2006	EXAMINER	
MARTINE PENILLA & GENCARELLA, LLP 710 LAKEWAY DRIVE SUITE 200 SUNNYVALE, CA 94085			MAKI, STEVEN D	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/501,705

Applicant(s)

PARK ET AL.

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1) The substitute specification filed 7-16-04 has been entered since applicant provided the clean copy, marked up copy and statement of no new matter. In order to expedite prosecution, the drawing sheet containing figures 3 and 4 have been entered since the subject matter of figure 3 is reasonably conveyed by the original disclosure.

2) The amendment filed 7-16-04 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

(1) Amended Figures 1 and 2 filed 7-16-04.

(2) New Figure 4.

(3) The substitute specification filed 7-16-04 at (a) page 6 lines 11-12; (b) page 7 lines 23-25, page 8 line 1; (c) page 8 lines 10-25 and page 8 lines 1-4; and (d) page 9 lines 22-25, and page 10 lines 1-4.

The original disclosure filed 1-17-03 including the original figures 1 and 2 filed 1-17-03, the original specification filed 1-17-03, the original claims filed 1-17-03 and the original abstract filed 1-17-03 fail to reasonably convey the subject matter of

(1) amended Figures 1 and 2 filed 7-16-04; (2) new Figure 4; and (3) the substitute specification filed 7-16-04 at (a) page 6 lines 11-12; (b) page 7 lines 23-25, page 8 line 1; (c) page 8 lines 10-25-25 and page 8 lines 1-4; and (d) page 9 lines 22-25, and page 10 lines 1-4.

Amended Figures 1 and 2 filed 7-16-04 illustrate the electric discharge passage(s) as being part of the under tread 20 whereas the original figures 1 and 2 filed

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1-17-03 illustrate the electric discharge passage(s) 30 as extending through the cap tread 10 and the under tread 20.

New Figure 4 filed 7-16-04 illustrates specific construction of the tire. In particular, new figure 4 illustrates bead regions of the tire and appears to illustrate the electric discharge passages 30 as extending to the inner surface of the tire which defines the inflation chamber of the tire. The above noted subject matter in new figure 4 is not supported by the original disclosure.

The substitute specification filed 7-16-04 at page 6 lines 11-12 describes the amount of silica as being more than 50 wt% relative to the weight of the rubber composition whereas the original specification filed 1-17-03 describes the amount of silica as being more than 50 phr. Parts per hundred rubber is not equivalent to 50% by weight of the total rubber composition.

The substitute specification filed 7-16-04 at page 7 lines 23-25 and page 8 line 1 describes "a portion of the under tread 20" (emphasis added) being extended from the bottom to surface of a tread structure" whereas the original disclosure describes the discharge passage 30 as extending from the inner surface of the under tread 20 to the outer surface of the cap tread 10. Also, see original figures 1 and 2 filed 1-17-03 which illustrate the electric discharge passage(s) 30 as extending through the cap tread 10 and the under tread 20.

With respect to the substitute specification filed 7-16-04 at page 8 lines 10-25 and page 8 lines 1-4, the original disclosure filed 1-17-03 fails to support using an inclined discharge passage 30 to reduce vertical load and thereby inhibit separation

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between the cap tread 10 and the discharge passage 30 caused by corner running and vertical load. The original disclosure filed 1-17-03 also fails to support obtaining substantial reduction in vertical load using an inclined angle of more than 110 degrees. The original disclosure filed 1-17-03 fails to support the inclined discharge passage 30 having a larger ground contact surface area. The original disclosure filed 1-17-03 fails to support using an inclined angle less than 130 degrees to avoid reducing production of the tires. The original disclosure describes the inclined angle as being 90 to 180 degrees, but does not recognize the reason for inclining the discharge passages or the benefits of selecting 110-130 degrees for the inclined angle.

With respect to the substitute specification filed 7-16-04 at page 9 lines 22-25 and page 10 lines 1-4, the original disclosure filed 1-17-03 fails to support the inclined discharge passage being difficult to separate from the cap tread by vertical load forces to thus have structural stability. Also, the original disclosure filed 1-17-03 fails to support the inclined discharge passage having a larger ground contact surface than that of a vertical type discharge passage. Instead of having possession of the subject matter of the passage being difficult to separate, the original disclosure describes modifying a tread structure without deteriorating abrasion resistance or low fuel consumption in such a manner that the tread structure has a electric discharge passage. The ground contact area of the discharge passage is independent of the angle of the discharge passage.

3) The disclosure is objected to because of the following informalities:

On page 7 line 5 of the specification filed 7-16-04, "100" should be --100%--.

On page 7 lines 23-25 of the specification filed 7-16-04, "fractional" should be --frictional--.

Appropriate correction is required.

Applicant is required to cancel the new matter in the reply to this Office Action.

- 4) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 5) Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (the new matter) is the subject matter of the amount of silica being more than 50 wt%. The original disclosure filed 1-17-03 describes using more than 50 phr silica instead of more than 50 wt% silica.

In claim 1, subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (the new matter) is the subject matter of the inclined angle being 110-130 degrees. The original

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disclosure filed 1-17-03 describes the inclined angle being 90-180 degrees, but fails to describe and select 110-130 degrees. In view of the preliminary amendment filed 7-16-04, applicant considers to the range of 110-130 degrees to offer "unexpected results" of substantial reduction in vertical load to inhibit separation between the cap tread and the discharge passage, larger contact surface to obtain more excellent static electricity discharge and prevention of reduction of production of tires. None of these benefits were recognized in the original disclosure filed 1-17-03. Since the original disclosure describes neither the narrow range of 110-130 degrees nor the various benefits of this specific range, applicant did not have possession of the subject matter of 110-130 degrees.

6) The claim is objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims.

See MPEP § 608.01(m).

7) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8) Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 1, the description of the amount of silica and the description of the inclined angle is ambiguous. With respect to what is the weight percent silica determined? With respect to what is the inclined angle determined? Is the inclined angle defined by the angle between the electric discharge passage and the undertread?

9) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11) Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japan 107 (JP 11-139107).

Japan 107, directed to enhancing extruding productivity without generating a stress for an antistatic tire, discloses a pneumatic tire having a tread cap 1, a tread base 2 and a circumferentially extending conductive rubber layer 3. The tread cap is silica rich and comprises for example 60 parts silica (Table 1). The conductive rubber layer 3 comprises for example 60 parts carbon black (Table 3). Japan 107 shows various embodiments of the conductive rubber layer 3. In figure 2, the conductive rubber layer 3 extends from the tread base 2 such that the inclined angle between the tread base

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and conductive rubber layer is an obtuse angle (illustrated angle being about 110 degrees). See abstract, figures and machine translation.

The claimed tire is anticipated by Japan 107's tire. In any event: it would have been obvious to incline a band shaped conductive rubber layer 3 (electric discharge passage) from the tread base (undertread) of Japan 107's tire at the claimed angle of 110-130 degrees since Japan 107 suggests inclining the conductive rubber layer at an obtuse angle (figure 2) as an alternative to orienting the conductive rubber layer at 90 degrees (figure 4) or at a larger obtuse angle (figure 3) in order to discharge static electricity. Furthermore, it would have been obvious to provide Japan 107's tread cap such that the amount of silica is more than 50 wt% as claimed since Japan 107 teaches that the tread cap is silica rich in order to obtain lower fuel consumption.

Remarks

- 12) The remaining references are of interest.
- 13) No claim is allowed.
- 14) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
February 1, 2006

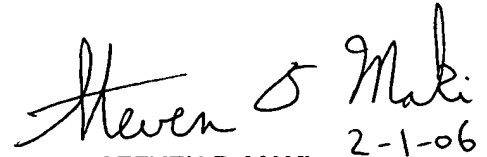

STEVEN D. MAKI
PRIMARY EXAMINER
2-1-06

FIG. 3

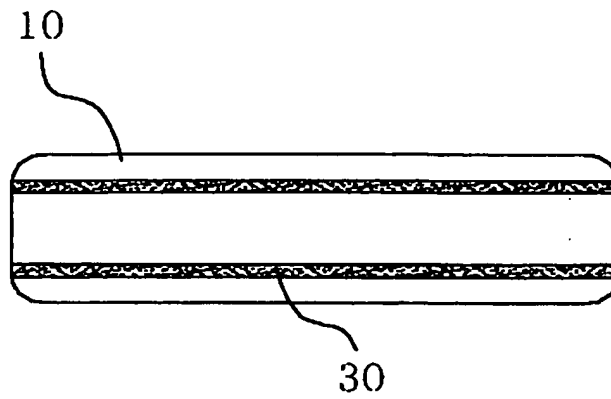
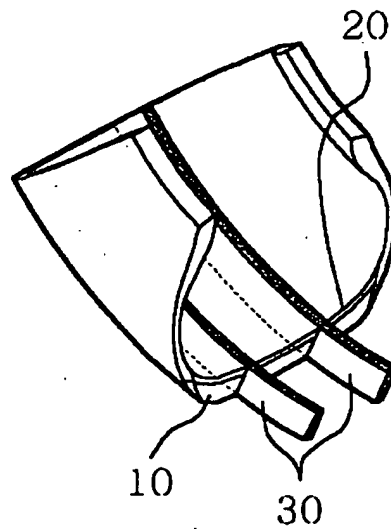


FIG. 4



OK TO ENTER
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